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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,924	08/15/2000	William Lewis Betts	61607-1260	9164
24504	7590	07/12/2005	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			GHULAMALI, QUTBUDDIN	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/638,924	BETTS ET AL.	
	Examiner	Art Unit	
	Qutub Ghulamali	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 52-55, 63-88 and 94-99 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 52-55 and 63-88, 94-99 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Acknowledgment

1. This Office Action is responsive to the Amendment filed on 01/18/2005.

Response to Arguments

2. Applicant's arguments, see pages 10-11, filed 1/18/2005, with respect to claim rejection under 35 U.S.C 112, Second Paragraph have been fully considered and are persuasive. The rejection of claims 75, 77, 79, 82 and 91 has been withdrawn.
3. The Office further acknowledges cancellation of claims 1-48, 49-51, 56-59, 60-62, 89-93, and addition of new claims 94-99, by the applicant

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 52, 63, 67, 71, 75, 78, 81, 82, 85, 87, 88, 94, 96 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxwell et al (US Patent No. 4,771,417) in view of Smith et al (US Patent No. 3,935,392).

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6. Regarding claims 52, 63, 67, 71, 75, 78, 82, 85 and 94, Maxwell (figs. 1, 12) discloses a method for reducing transmission errors in a communication system comprising:

determining that there is a periodic transient (transmission error) in the communication system (col. 2, lines 64/67; col. 4, lines 32-44);

responsive to determining that there is a periodic transient (transmission error), causing data communications equipment to reduce its transmission rate from an original rate to a lower rate (fall back) (col. 2, lines 64-67; col. 3, lines 1-4; col. 20, lines 28-40); and

causing the data communications equipment to restore its data transmission rate to the original rate (modem initiates recovery to transmit sequence, the current rate being the rate at which the modem engages transmission communication) after a predetermined period of time (acknowledgement) (col. 19, lines 46-67; col. 20, lines 10-18, 29-40).

The difference between the above and the claimed invention is the use of the term periodic transient. Smith shows an apparatus and method for detecting the occurrence of dial pulse signal wherein transient signals within the frequency range of possible dial pulse signals are detected, each "make" and "break" generates transient signals within the speech-frequency transmission and transmits the transient signal pulse bursts so that the received signal is a series of transient pulse burst. It would have been obvious to the person having ordinary skill in this art at the time the invention was made to provide a similar transient detection arrangement as taught by Smith in the system of Maxwell so that the processor can suspend or lower the data transmission rate upon detection of errors or transients as taught by Smith (abstract; col. 2, lines 1-13, 50-53).

Additionally, it is expressly noted in the context of the applicant's disclosure in the background

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of the invention on pages 1 and 2, indicating that transients in broad terms, refers to ringing, impulse noise or bit errors commonly associated with pulse signals in telephony systems.

Regarding claims 80, 81, 87, 88, 96 and 98, Maxwell discloses determining if the collected data is sufficient to calculate (determine) the second time for rate adjustment (col. 5, lines 40-45); and

Repeating the collecting step if the collected data is not enough (col. 5, lines 40-60).

7. Claims 53, 64, 68, 72, 76, 79, 83, 86, 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxwell et al in view of Smith et al (US Patent No. 3,935,392) as applied to above claims, and further in view of Frick et al (US Patent No. 5,473,676).

Regarding claims 53, 64, 68, 72, 76, 79, 83, 86, 95, Maxwell and Smith in combination with other claimed limitations disclose every aspect of the claimed invention, but the combination is silent regarding measuring the length of time between transients. Frick, in a similar field of endeavor, discloses (fig. 2) signal received by the modem 24 is monitored by the tone detectors 242 and 244 adapted to detect a start tone for approximately 200 msec providing a measure of time between tones. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a processor programmed to measure the length of time between tones or transients as taught by Frick, in the combined art of Maxwell and Smith so as to facilitate the communication process capabilities (col. 7, lines 44-56; col. 11, lines 52-61). Additionally, it is noted in the context of the applicant's disclosure in the background of the invention on pages 1 and 2, that transients in broad terms, refers to ringing, impulse noise or bit errors associated with *pulse signals or pulse tones* as is well known in telephony art).

8. Claims 54, 55, 58, 59, 65, 66, 69, 70, 73, 74, 77, 84, 97, 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxwell et al (US Patent No. 4,771,417) in view of Smith et al (US Patent No. 3,935,392) and further in view of Parrott (US Patent No. 6,351,533).

As indicated with reference to claims 52, 63, 67, 71, 75, 82 and 94, Maxwell and Smith in combination with other claimed limitations disclose all limitations of the claimed invention. The difference between Maxwell, Smith and the claimed invention is that of a processor configured to determine the cadence of errors or transients. Parrott (fig. 3) with reference to claims 54, 55, 65, 66, 69, 70, 73 and 74 in a similar field of endeavor discloses a ring signal 317, routed to processor 318, where signal 317 is analyzed for duration of at least cadence (cadence interval) (col. 6, lines 9-15). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a processor to determine the cadence of errors or transients as taught by Parrott in the system of Maxwell and Smith so as to improve the determination of transmission rate in a communication system.

Response to Arguments

9. Applicant's arguments filed 01/18/2005 have been fully considered but they are not persuasive. Applicant traverses the rejection by mainly arguing that the cited references Maxwell et al (US Patent 4,771,417) and Smith et al (US Patent 3,935,392), fail to teach the claimed limitation of periodic transient recited in claims 52, 63, 67, and 71. However, the examiner respectfully disagrees:

In response to applicant's argument the examiner respectfully would like to draw applicant's attention to Maxwell et al, col. 2, lines 64-67 and col. 3, lines 1-4, and Smith et al col. 11, lines

52-66 that discloses; changes in the speed of data transmission is based upon determinations of data transmission error. The applicant's disclosure in the background of the invention on pages 1 and 2 refers to transients in broad terms to associate with ringing, impulse noise and bit errors in data being transmitted. Smith, further discloses the processor utilizes the speed tones (rings) that are detected by the processor and thus determines the data rate for acknowledgment data to be received and further detecting the occurrence of dial pulse signal wherein transient signals within the frequency range of possible dial pulse signals are detected, each "make" and "break" generates transient signals within the speech-frequency transmission and transmits the transient signal pulse bursts so that the received signal is a series of transient pulse burst.

Based on the information disclosed in the reference an art the examiner therefore, considers the references cited reads on the claims making this argument moot.

Based on the above rational, it is believed that the limitations of claims 52, 63, 67, and 71, are met by reference to Maxwell et al (US Patent 4,771,417) and Smith et al (US Patent 3,935,392). Therefore the rejection to claims 52, 63, 67, and 71 and dependent claims thereof is still maintained.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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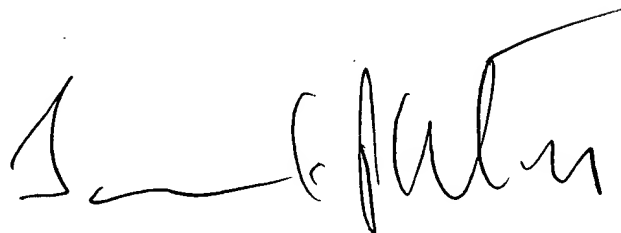
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Qutub Ghulamali.
June 28, 2005

A handwritten signature in black ink, appearing to read 'Jay K. Patel', is written over a horizontal line.

JAY K. PATEL
SUPERVISORY PATENT EXAMINER